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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 09/970,539 | 10/03/2001 | Jan Renier Moonen | US018163 | 1384 |
| 7590 07/21/2005 Philips Electronics North America Corporation 580 White Plains Road Tarrytown, NY 10591 | | | EXAMINER JAIN, RAJ K | |
| | | | ART UNIT 2664 | PAPER NUMBER |

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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OIPE/IAP

JUL 28 2005

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|------------------------------|-------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 09/970,539 | Applicant(s) MOONEN, JAN RENIER | |
| | Examiner Raj K. Jain | Art Unit 2664 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/21/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-9 examined on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Yagyu et al (EP001128605A2).

Regarding claim 1, Yagyu discloses a method of bridging a plurality of multicast domains (see abstract, Fig. 1) the method comprising:

- enabling to transfer a multicast message (see Fig. 1), originating in a specific one of the domains 10, as a unicast message to at least another one of the domains 20 (see Figs. 1 & 2, abstract, paras 0009, 0012-0014, a multicast message in domain 10 is converted or encapsulated into a unicast packet to be tunneled thru to domain 20 and then reconverted back to a multicast packet for distribution accordingly);

- enabling to regenerate the multicast message from the unicast message in the other domain (see Figs. 1 & 2, abstract, paras 0009, 0012-0014, once the unicast

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packet reaches the 201 transferring apparatus of the destination domain 20, the transferring apparatus than reconstructs the original multicast packet from the received unicast packet).

Regarding claims 7, 8 & 9, Yagyu discloses a unicast message on a data network, a multicast message being encapsulated in the unicast message (see Figs. 1 & 2, abstract, paras 0009, 0012-0014, a multicast message in domain 10 is converted or encapsulated into a unicast packet to be tunneled thru to domain 20 and than reconverted back to a multicast packet for distribution accordingly. One skilled in the art appreciates the concept of IP tunneling. IP tunneling combines unicast and multi-recipient delivery, and may combine TCP and UDP techniques. IP tunneling is known for use in the multicast context. Such tunneling refers to the encapsulation of multicast packets in an IP datagram (i.e. unicast packet) to route through parts of a network that don't support multicast routing. The encapsulation is added on entry to a tunnel and stripped off on exit from a tunnel. More specifically, the packet is wrapped, sent through a unicast tunnel, unwrapped, and then resent in the destination subnet).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagyu et al (EP001128605A2) further in view of Weisman et al (US 20020112058A1).

Regarding claims 2 and 3, Yagyu discloses a method and apparatus for multicast packet transfer between different domains (10, 20 of Fig. 1) by converting the multicast packet to unicast packet and than reconstructing the multicast packet back at the destination domain.

Yagyu fails to disclose a message within the multicast packet for discovery of services or devices.

Weisman discloses a message within the multicast packet for discovery of services or devices (see paras 0840 – 0843, 0849).

Discovery messages within the multicast packet enable new devices to be incorporated within the existing network via new IP addresses for communication purposes and contact.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate discovery messages within multicast packets within Yagyu for the purposes of facilitating the addition of new devices and or services within a network as appropriate.

Regarding claims 4-6, Yagyu discloses a method and apparatus for multicast packet transfer between different domains (10, 20 of Fig. 1) by converting the multicast packet to unicast packet and than reconstructing the multicast packet back at the destination domain.

Yagyu fails to disclose a wireless network with UpnP architecture having IP multicasting capabilities.

Weisman discloses a wireless network (see paras 0002 and 0416) with UpnP architecture having IP multicasting capabilities (see paras 0803-0811). UpnP functionality includes a Simple Service Discovery Protocol (SSDP), an IP multicast based discovery protocol, HTTP and XML. An IP multicast is a mechanism for sending a single message to multiple recipients. IP multicasting is especially useful for discovery operations where one does not know exactly who has the information one seeks. In such cases, one can send a request to a reserved IP multicast address. Any services that can provide the requested information will also subscribe to the multicast request and thus be able to hear the information request and properly respond.

Upnp leverages formal protocol contracts to enable peer-to-peer interoperation. Protocols contracts enable real-world multiple-vendor interoperation. Upnp provides a device-driven auto-configuration capability that preserves the experience that customers have on the Web. It is possible to navigate around the Web without loading programs beyond the browser itself.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made incorporate the Upnp architecture within Yagyu so as to provide a seamless integration of differing components that have different programming languages and/or operating system requirements.

Conclusion

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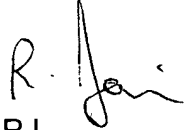
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-

2600.

A handwritten signature in black ink, appearing to read 'R. Jain', is written over the printed name 'RJ'.

RJ

June 27, 2005



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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | Application Number | 09/970,539 |
| | Filing Date | 10/03/2001 |
| | First Named Inventor | MOONEN, Jan Renier |
| | Art Unit | 2664 |
| | Examiner Name | Unknown |
| Attorney Docket Number | | US01 8163 |

| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|-----------------------|---|-----------------------------|---|---|
| Examiner Initials* | Cite No. ¹ | Document Number No.-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns Lines, Where Relevant Passages or Relevant Figures Appear |
| | | US- | | | <div style="text-align: center;"> RECEIVED AUG 22 2003 Technology Center 2600 </div> |
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| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|-----------------------|---|-----------------------------|---|--|----------------|
| Examiner Initials* | Cite No. ¹ | Document Number (ctry ³ -no. ⁴ -kind ⁵ , if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of cited document | Pages, Columns Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| <i>PR</i> ↓ | | EP 1 128 605 | 08-29-2001 | YAGYU, Tomohiko, et al. | | |
| | | WO 98 02821 | 01-22-1998 | HART, John, et al. | | |
| | | WO 00 11836 | 03-02-2000 | PEARLMAN, Radia J., et al. | | |
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| NON-PATENT LITERATURE DOCUMENTS | | | | | |
|---------------------------------|-----------------------|---|--|--|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in capital letters), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | | T ⁶ |
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| Examiner Signature | <i>R. Jan</i> | Date Considered | 6-23-05 |
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* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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|-----------------------------------|---------------------------------------|--|-------------|
| Notice of References Cited | Application/Control No. 09/970,539 | Applicant(s)/Patent Under Reexamination MOONEN, JAN RENIER | |
| | Examiner Raj K. Jain | Art Unit 2664 | Page 1 of 1 |

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| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|----------------|----------------|
| | A | US-2002/0112058 A1 | 08-2002 | Weisman et al. | 709/227 |
| | B | US- | | | |
| | C | US- | | | |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
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| | K | US- | | | |
| | L | US- | | | |
| | M | US- | | | |

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|---|---|--|-----------------|---------|-------------|----------------|
| * | N | EP1128605 A2 | 08-2001 | Europe | Yagyu et al | |
| | O | | | | | |
| | P | | | | | |
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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